ULTRASONICALLY ASSISTED OPTICAL MEDIA SENSOR SYSTEM

ABSTRACT

A print media sensor (10) according to the present invention determines a print medium type by utilizing an ultrasonic transducer (22) to vibrate a print medium (28) at a resonant frequency of the print medium (28). The print medium (28) is irradiated with light from an LED (20). Sensors (24, 26) measure the amount of light reflected from and transmitted through the print medium (28) while it is being vibrated at the resonant frequency. The ratio of the reflected to transmitted light is compared to a stored table of ratios that are associated with the resonant frequencies of specific print medium types and print medium ink volume and application rates. The results of these comparisons are used to determine the print medium type and the associated ink volume and application rate to be used for printing on the print medium (28).